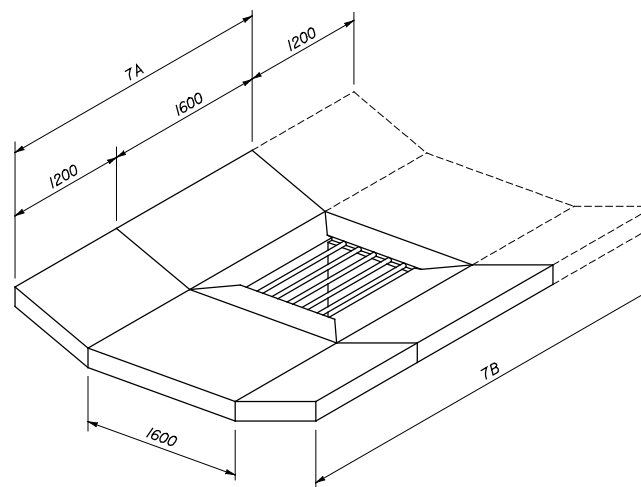
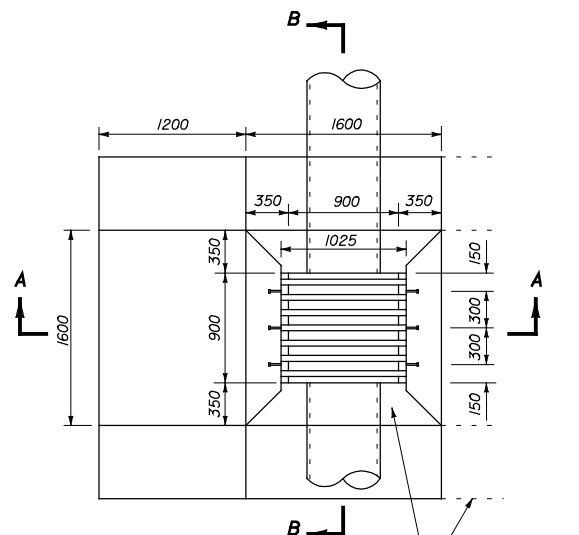


REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS



NOTE:

1. Dimensions not labeled are in millimeters.
2. 7A= single gutter when inlet is on a grade.
3. 7B= double gutter when inlet is in a sag between two grades.
4. Ditch to be warped to tie smoothly into inlet gutter.
5. Outside dimensions of grate to be 1000 x 890 mm
6. Maximum depth (H) is 3800 mm.
7. All reinforcing bars are #16 placed a minimum 40 mm clear from face of concrete. In floors, place bars on 150 mm centers each way. In walls, place horizontal bars on 150 mm centers and vertical bars on 300 mm centers.
8. Galvanize grate after fabrication in accordance with AASHTO M 111.
9. Alternate methods of anchoring angle iron will be acceptable if approved by the CO.

APPROXIMATE QUANTITIES

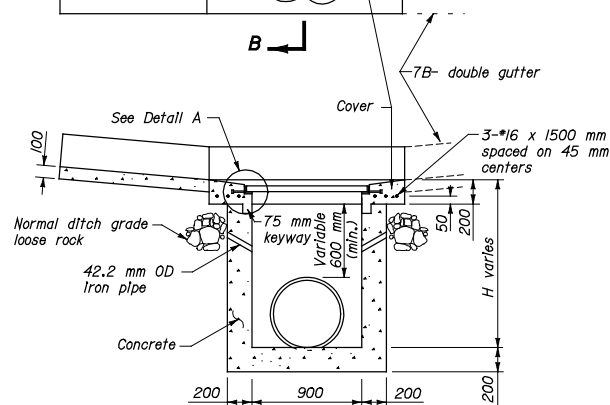
Pipe Size	300	375	450	600	750	900
Min. depth H	600	690	775	940	1100	1270
m ³ conc. Inlet	0.724	0.799	0.874	1.024	1.174	1.323

Increment per 300 mm of additional depth, (H)= 0.264 Cubic meters.

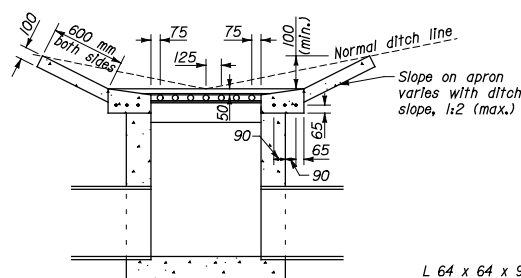
Cubic meters concrete for gutter
7A= 0.528 & B= 0.864.

Cubic meters concrete for cover= 0.323 (not included above).

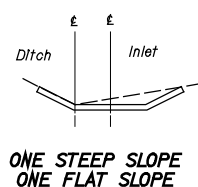
Reinforcing steel for cover= 28.5 kg.



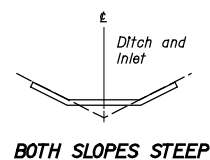
SECTION A-A



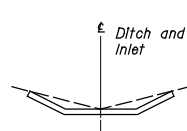
SECTION B-B



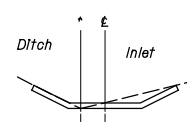
ONE STEEP SLOPE
ONE FLAT SLOPE



BOTH SLOPES STEEP

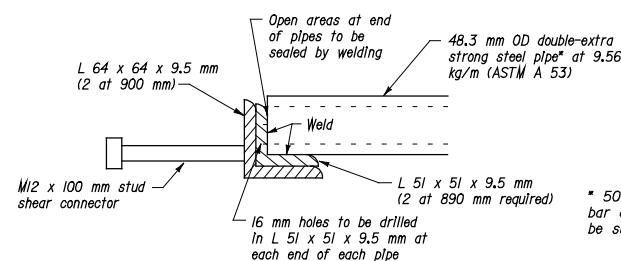


BOTH SIDES FLAT



ONE STEEP SLOPE
ONE INTERMEDIATE SLOPE

TYPICAL GUTTER PLACEMENT



DETAIL A

* 50.8 mm dia. solid steel bar at 15.89 kg/m may be substituted.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY OFFICE

METRIC STANDARD

INLET, TYPE 7A AND 7B FOR
USE WITH 300 TO 900 PIPES

STANDARD APPROVED FOR USE 05/96	STANDARD
REVISED 8/97	M604-8